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Studies on the Rocky Mountain flora — XXV

PER AXEL RYDBERG

***Ptilocalais macrolepis* Rydb. sp. nov.**

Perennial with fusiform roots; stem glabrous, 2–5 dm. high, somewhat branched, glabrous or minutely puberulent; lower leaves somewhat petioled, the upper sessile; blades linear-lanceolate, entire or rarely pinnatifid with linear-lanceolate, divergent divisions; heads solitary at the ends of the slender naked branches; involucre turbinate, about 2 cm. high. Calyculate bracts 8–10, lanceolate or linear-lanceolate, 3–6 mm. long; bracts proper 12–15, linear-lanceolate, attenuate; achenes about 7 mm. long, puberulent on the rounded angles or glabrate; pappus-scales lanceolate, 4–5 mm. long, gradually tapering upwards; bristles 6–7 mm. long.

In habit this species is intermediate between *Ptilocalais nutans* and *P. major*, with the head of the latter, but it differs from both in the pappus-scales. In the original description of *Ptilophora major*, Gray gives no description of the pappus, stating that his specimens were too young. In the Columbia University herbarium there is a duplicate of the type, collected by Spalding. This has fairly well developed fruit and shows that *Ptilocalais major* has practically the same pappus as *P. nutans*, i. e., the paleaceous portion is only 2 mm. long, oblong in outline, truncate and somewhat 3-toothed at apex. *P. macrolepis* grows in sandy soil at an altitude of 1200–1500 m.

UTAH: Benches near Salt Lake City, Apr. 30, 1904, *A. O. Garrett* 182 (type, in herb. N. Y. Bot. Gard.); Red Rock Cañon, June 11, 1905, *Rydberg* 6105; Salt Lake City, May 12, 1880, *M. E. Jones* 1707 (at least in part); benches near Salt Lake, June 1, 1900, *Stokes*.

PTILORIA

Professor Nelson, in the New Manual of Botany of the Central Rocky Mountains, restores the name *Stephanomeria*, following the Vienna Rules. The only criticism I have to make of the treatment of the genus is that he has reduced *Ptiloria ramosa*

Rydb. to a synonym of *S. tenuifolia* (Torr.) Hall. In the herbarium of the New York Botanical Garden there is a good specimen of *P. ramosa* collected by Aven Nelson and Elias Nelson, viz., no. 5985. This is labeled *Ptiloria pauciflora* (Torr.) Raf. It agrees well with Nelson's description of *S. pauciflora*, except as to the pappus, but it is very unlike the type of *Prenanthes pauciflora* Torrey, collected by James and preserved in the herbarium of Columbia University. *Ptiloria pauciflora*, so far as I know is not found so far north as Wyoming.

ADOPOGON

Professor Nelson has readopted *Krigia* for this genus and perhaps rightly so, as most of Necker's genera can scarcely be called published. However, he wrongly adopts the name *Krigia virginica* (L.) Nels. for the only species found in the region, notwithstanding the fact that there is an older *Krigia virginica* (L.) Willd.

CREPIS

Under *Crepis runcinata* we find in the New Manual the following synonyms and remarks. "(*C. platyphylla* Greene . . . ; *C. glauca* Rydb. . . , *C. tomentulosa*, *C. perplexans*, and *C. petiolata* Rydb. . . . To recognize the foregoing one would first have to assume a hypothetical *C. runcinata*.)" There is hardly need of assuming a hypothetical *C. runcinata*, for there are found in the region where the type of *Hieracium runcinatum* Torr.* was collected at least two plants which agree very well with the original description. One is the plant for which I have adopted the name *Crepis runcinata*, the other is *C. riparia* A. Nels. Most of James' plants are in the old Torrey herbarium, but the type of *Hieracium runcinatum* is not there. Torrey's description is very clear, however, and calls for a strongly hairy plant. All the synonyms cited above, except *C. platyphylla*, represent glabrous plants (except as to the involucre), and more closely related to *C. glauca* than to *C. runcinata*. *Crepis platyphylla* Greene is closely related to *C. riparia* and perhaps not distinct,

* Ann. Lyc. N. Y. 2: 209. 1826.

at least it is more closely related to it than is *C. denticulata* Rydb., which Professor Nelson reduces to a variety. A "conservative" botanist would unite *C. platyphylla* Greene (*C. runcinata hispidulosa* Howell) and *C. riparia*. The latter would then be reduced to synonymy, as the former name is three years older. In Torrey and Gray's Flora, *Hieracium runcinatum* was transferred to *Crepis* and the authors cite four specimens, of which two, viz., those collected by Drummond (*Crepis biennis* β Hook.*) and by Nicolle are preserved in the Torrey herbarium. These agree with the description of Torrey's *Hieracium runcinatum*. I have adopted the name *Crepis runcinata* for these specimens rather than to transfer the name to *C. riparia*. If Professor Nelson had reduced *C. tomentulosa* to a synonym of *C. glauca*, I would have made no objection, for I myself am somewhat suspicious that it may be only a state or condition of that species. *Crepis petiolata* and *C. glauca* are closely related to it, and the glandular involucre is the only character which would associate it with *C. runcinata*. *C. perplexans* is closer to *C. runcinata*, but it also is a glabrous plant.

Both *Crepis denticulata* Rydb. and *C. alpicola* A. Nels. are included in *C. riparia parva* A. Nels. *Crepis alpicola* was technically based on *C. runcinata alpicola* Rydb. The type of both the latter and *C. denticulata* are in the herbarium of the New York Botanical Garden and they are not at all alike. Nelson's description of *C. riparia parva* agrees with *C. alpicola* but not with *C. denticulata*. Compare the original descriptions.

Crepis angustata Rydb. is made a synonym of *C. gracilis* (D. C. Eaton) Rydb. The plant described by Professor Nelson is, however, not *C. gracilis* but *C. angustata*. *Crepis gracilis* was established on *C. occidentalis gracilis* D. C. Eaton.† The type of this is *Watson 716*, a duplicate of which is in the Columbia University herbarium. It is a plant exceedingly like *C. scopulorum* in habit, but the involucre is narrower, the bracts fewer, and the achenes distinctly ribbed. Some of the involucral bracts have a few black hairs as they have in *C. scopulorum*. *Crepis angustata*, like *C. intermedia*, never has black hairs. *C. gracilis*

*Fl. Bor.-Am. 1: 297.

†Bot. King. Exp. 203. 1871.

I think has been redescribed under the name *C. exilis* Osterhout,* omitted by Nelson.

Crepis pumila Rydb. is made a synonym of *C. occidentalis*. *C. pumila* is not only a lower plant, without any trace of black glandular hairs, but it has different, perfectly columnar achenes. Apparently it was included by Dr. Gray in his *C. occidentalis costata*.

Crepis atribarba Heller is made a synonym of *C. barbigera* Leiberg. The two are not even closely related. The latter is not found within the region, and there was no need of even considering it.

***Crepis seselifolia* sp. nov.**

Perennial with an ascending rootstock and short base covered by remains of old leaves; stem 4-6 dm. high, slender, canescent-tomentulose or the upper part glabrous; basal leaves long-petioled; blades 1-2 cm. long, deeply twice pinnatifid, with linear filiform divisions, canescent-tomentulose, caudate-acuminate, with an elongated linear entire end 5-8 cm. long; stem-leaves sessile, less divided or the uppermost entire and linear-filiform; heads corymbose-paniculate; involucre glabrous, cylindric, about 1 cm. long; calyculate bracts ovate or ovate-lanceolate, only 1-1.5 mm. long; bracts proper 5-7, linear, yellowish green; flowers 5-7; ligules nearly 1 cm. long; achenes somewhat fusiform, striate.

In habit this species resembles most *Crepis gracilis* (D. C. Eaton) Rydb., but the divisions of the leaves are much narrower and often again divided into very narrow divisions, and the involucre is glabrous as in *C. acuminata*. The leaves resemble those of certain species of the genus *Seseli*.

IDAHO: Rocky hillsides, scarce, valley of Big Potlatch River, Nez Perces County, Idaho, June 6, 1892, *Sandberg*, *MacDougal* & *Heller* 326 (type, in herb. N. Y. Bot. Gard.).

HIERACIUM

Professor Nelson includes both *Hieracium umbellatum* L. and *H. canadense* Michx. in the flora of the Rocky Mountains. Neither is found in the region. *H. umbellatum* is exceedingly rare in America and confined to the extreme northeastern part, evidently an introduced plant. *H. columbianum* on account of its

* *Muhlenbergia* 1: 142. 1906.

narrow leaves (narrower than in *H. canadense*) has sometimes been confounded with *H. umbellatum*, sometimes with *H. canadense* on account of its hairy stem. The common plant of the West, which has been confounded with both, is *H. scabriusculum* Schwein.* (*H. macranthum* Nutt.†). Narrower-leaved specimens have been named *H. umbellatum* and broader-leaved ones, *H. canadense*. It differs from *H. canadense* in the glabrous stem and finely scabrous-puberulent leaves. *H. columbianum* has long white or yellow hairs on the lower part of the stem.

The true *Hieracium Scouleri* Hook. is not found in the region. A duplicate of the type is in the old Torrey herbarium. It is an almost scapose plant with the broad leaves obtuse at the apex and gathered near the base of the stem. The stem-leaves are few and small and the involucre bracts hirsute with short dark hairs. The plant resembles more *Hieracium albiflorum* in habit than it does *H. griseum* and *H. cynoglossoides*. The plant with long-hairy involucre which, mainly, Dr. Gray described in his Synoptical Flora and Professor Nelson described in the New Manual is not *H. Scouleri*. It should be known as *H. albertianum* Farr.‡

***Heteropleura Fendleri* (Schultz Bip.) Rydb. comb. nov.**

Crepis ambigua A. Gray, Mem. Am. Acad. 4: 114. 1849. Not

C. ambigua Balb. 1805.

Hieracium Fendleri Schultz Bip. Bonplandia 9: 173. 1861.

Heteropleura ambigua Schultz Bip. Flora 45: 435. 1862.

Hieracium nigrocollinum S. Wats. Proc. Am. Acad. 25: 133. 1890.

This species has been included in *Hieracium* by Dr. Gray and others. It would be better to include it in *Crepis* than in *Hieracium*, for the achenes are tapering upwards and the pappus is tawny, not white. The involucre bracts are not thickened on the back, however, as they are in most species of *Crepis*, and the general habit resembles perhaps more that of *Hieracium* than of *Crepis*. It does not fit well in either genus, at the same time

*Long's Second Exp. 2: 394. 1824.

†Trans. Am. Phil. Soc. II. 7: 446. 1841.

‡Ottawa Nat. 20: 109. 1906.

combining characters of both. Either the two genera should be united or else this species and several others of the southwestern United States and Mexico should be separated as a distinct genus. Even Fries in his *Symbolae Hieraciorum* recognized this fact and suggested the name *Crepidispermum*. He did not exactly publish the genus and no binomial names were given under the genus. Besides, in the same year a genus *Crepidosperrum* B. & H. was published. The two names differ only in one letter, the connecting vowel *i* in one case and *o* in the other. The former is the Latin connecting vowel, the latter the Greek, which is sometimes used in Latin for euphony's sake. The two names may therefore be regarded as identical. The two brothers Schultz of Zweibruecken adopted Fries' suggestion and established the genus under the name *Heteropleura*, as alternate ribs of the achenes are stronger. The present species was given the name *Heteropleura ambigua*, based on *Crepis ambigua* A. Gray. As there is an older *C. ambigua* Balb., that specific name is not available, and hence I have adopted *Heteropleura Fendleri*.

AGOSERIS

Professor Nelson reestablishes the name *Troximon* for this genus, evidently following as he thought the Vienna Rules and cites Nuttall as authority for the genus. This is a similar case to that of *Actinella* and *Tetraneuris*. In fact Nuttall never established a genus *Troximon*. He thought that his two species belonged to the genus *Troximon* Gaert. *Troximon* of Gaertner was established in 1791 on *Tragopogon Dandelion*, *T. virginicum*, and *T. lanatum*, of which the first two belong to one genus, *Krigia* or *Adopogon*, and the last is a *Scorzonera*. Even if Nuttall had established a genus *Troximon*, this would not hold, for then it was not published before 1818 in his *Genera*, while Rafinesque's name dates from 1817. It is true that *Troximon* appeared in Fraser's Catalogue of 1813, but there it is without description. In his *Genera*, Nuttall credits Gaertner with the name. So does also Pursh in his *Flora*, 1814. There is therefore no warrant for reviving *Troximon* for the genus known in later years as *Agoseris*.

A good deal may be said regarding Professor Nelson's treatment of this genus, especially in the way synonyms have been

cited. *Agoseris attenuata* Rydb. is given as a synonym of *T. pubescens* (Rydb.) A. Nels. *A. attenuata* has perfectly glabrous leaves, only the involucre and the upper part of the scape being villous. It would be included in *Agoseris pumila* (Nutt.) Rydb., were it not for the decidedly acuminate inner bracts. It has very little indeed to do with the decidedly pubescent *A. pubescens*.

Agoseris maculata Rydb. is made a synonym of *Troximon villosum* (Rydb.) A. Nels. It is true that they much resemble each other in general habit and pubescence, but the outer bracts in *A. villosa* are obtuse or even rounded at the apex, while those of *A. maculata* are abruptly and distinctly acuminate. *A. villosa* is a plant of the lowlands of Montana, westward and northward, while *A. acuminata* is an alpine or subalpine plant of the mountains of Colorado.

Troximon roseum Nutt., *Agoseris agrestis* Osterhout, and *A. roseata* Rydberg are made synonyms of *Troximon glaucum*. I have not seen the type of *T. roseum* Nutt., but, as I interpret it, it is a plant closely related to *T. laciniatum* Nutt., not to *T. glaucum*. *Agoseris agrestis* Osterhout is related to *A. glauca*, but if made a synonym of anything it should be of *Troximon pumilum* Nuttall, having the same pubescent involucral bracts, but the leaves are pinnatifid and caudate-acuminate instead of entire and obtuse or rounded at the apex.

Under *Troximon glaucum dasycephalum* Professor Nelson gives a citation from Piper's Flora of Washington: "This plant differs from *T. glaucum* only in having a pubescent involucre. It is scarcely worth nomenclatural recognition." I think that both Piper and Nelson are incorrect in this statement. In *Agoseris glauca* (Nutt.) Greene the involucre is decidedly obconic, and the leaves narrowly oblanceolate or linear and glaucous; in *Agoseris scorzoneraefolia* (Schr.) Greene (*Troximon glaucum dasycephalum* T. & G.) the involucre is decidedly campanulate, sometimes in age almost hemispheric, the outer bracts and the leaves broader, and the latter scarcely glabrous. Those who have access to the Botanical Magazine may compare *plate 1667* and *plate 3462*, which give good illustrations of *Agoseris glauca* and *A. scorzoneraefolia* respectively.

Under *Troximon glaucum dasycephalum*, *Agoseris altissima* is

given as a synonym. The latter plant is a decidedly pubescent plant and should be associated rather with *A. villosa*, but is taller and its flowers turn deep purple in age.

Under the variety *pumilum* we find *Agoseris Leontodon* Rydb. as a synonym. The latter was based on *Macrorhynchus glaucus laciniatus* D. C. Eaton. Dr. Gray included in his *Troximon glaucum laciniatum* a multitude of forms, in fact everything of the *A. glauca* group with lacinate leaves. *Macrorhynchus glaucus laciniatus* D. C. Eaton is not found east of Nevada. It is related to *Stylopappus laciniatus* Nutt.

Under *Troximon arachnoideum* (Rydb.) A. Nels. are found the following: "*T. glaucum laciniatum* in part (not *T. laciniatum* Gray . . . ; *Agoseris laciniata* Greene; *A. arachnoidea* Rydb. . .)." The plant described by Professor Nelson is the same as *Stylopappus laciniatus* Nutt. A duplicate of Nuttall's type is in the old Torrey herbarium, and it is to be known as *Agoseris laciniata* (Nutt.) Greene. If *Troximon* is used the name should be *T. laciniatum* (Nutt.) A. Gray, although Dr. Gray described under that name an entirely different plant from Nuttall's *Stylopappus laciniatus*. The type of the latter did not have developed fruit and both Nuttall and Gray thought that it was related to *Stylopappus grandiflorus* Nuttall, or *Troximon grandiflorum* A. Gray. Its achenes are of the *A. glauca* type with short striate beak. (See further below.) To use the name *Troximon arachnoideum* for this plant was entirely out of place, for *Agoseris arachnoidea* Rydberg is an entirely different plant of the *A. aurantiaca* group, with long filiform, non-striate achene-beak, in age purple flowers, and with densely pubescent leaves. Evidently Professor Nelson did not know the plant.

Under *Troximon purpureum* we find the following synonyms: "*Macrorhynchus purpureus* A. Gray . . . ; *T. gracilens* A. Gray . . . ; *A. Greenei* Rydb. as to our range." In the herbarium of Columbia University there is a duplicate of the type of *Macrorhynchus purpureus* A. Gray. It is a low plant scarcely more than 1 dm. high, with narrow, pinnatifid, glaucous and glabrous leaves and brightly spotted involucral bracts. Professor Nelson characterizes his *Troximon purpureum* as being tall, 2-5 dm. high, with leaves tapering into long, slender, winged petioles. Evi-

dently Professor Nelson did not have in mind the true *Macrorhynchus purpureus*, on which *Troximon purpureum* (A. Gray) A. Nels. should have been based, but a mixture of *A. gracilens* and *A. Greenei* Rydb. If any reduction should have been made, *T. gracilens* should have been made a synonym of *Troximon aurantiacum* Hook. In the herbarium of Columbia University there is a duplicate of the type of the latter and one specimen cited in the original description of the former. The only difference I can see is that the outer bracts in *T. aurantiacum* are broader and inclined to be obtuse. As to *Agoseris Greenei* Rydb. the name has to be changed. The plant should be known as

AGOSERIS GRAMINIFOLIA Greene, Bull. Torrey Club

25: 124. 1898.

Troximon gracilens Greenei A. Gray, Proc. Am. Acad. 19: 71. 1883.

Agoseris gracilentia Greenei Greene, Pittonia 2: 177. 1891.

Agoseris Greenei Rydb. Mem. N. Y. Bot. Gard. 1: 459. 1900.

Not *Agoseris Greeneana* O. Kuntze, Rev. Gen. Pl. 304. 1891.

Troximon purpureum A. Nels., Coult. & Nels. New Man. Cent. Rocky Mts. 599, in part. 1909. Not *Macrorhynchus purpureus* A. Gray. 1859.

For this species I had adopted the name *Agoseris Greenei*, basing it upon *Troximon gracilens Greenei* A. Gray, but I had overlooked the fact that there had been published an *Agoseris Greeneana* based on *Troximon elatum* Greene. The latter should be known, however, as *A. major* Jepson, published in September, 1891, while Kuntze's name was published in October, 1891.

A closer investigation of *Agoseris graminifolia* persuaded me that it could not be kept distinct from *A. Greenei* (A. Gray) Rydb. although the leaves of the specimens from type collection are more entire than usual. On the sheet in the collection of the New York Botanical Garden they are wholly entire, but the figure published and drawn from the type specimen shows four leaves with a few short lobes.

Under *Troximon arizonicum* Professor Nelson gives as synonyms *Agoseris elongata* Greene, *A. rostrata* Rydb., and *A. humilis* Rydb. The first is only a manuscript name, but the specimens so named are rightly referred to *T. arizonicum*. *Agoseris humilis*

is related to *A. gracilens* and *A. aurantiaca* and should have been included in the latter as characterized by Professor Nelson. *Agoseris rostrata* is not closely related to either but is the next relative to *A. grandiflora* of the Pacific Slope, having the same short outer bracts and elongated inner ones and the same very long and slender beak of the achenes, nearly three times as long as the body. It is the "*T. grandiflorum* as to our range," an expression which Professor Nelson erroneously uses under *Troximon montanum*.

***Agoseris turbinata* sp. nov.**

Perennial with taproot and short caudex; leaves narrowly linear, 7-15 cm. long, 1-5 mm. broad, glabrous, bluish green, the midvein and base often purplish, entire, attenuate; scape about 3 dm. high, slender, sparingly villous, more densely so under the head; involucre turbinate, 17-20 mm. high; bracts all narrowly lance-linear, villous on the back as well as on the margins, with dark purple middle and yellowish green margins; ligules 15-18 mm. long, yellow with purplish veins, turning pinkish in age; beak of the achenes short and striate.

This resembles in many respects *Agoseris parviflora* in habit, but differs in the villous scape and involucre and in the beautifully variegated bracts.

ALBERTA: Gravel Slope of Tunnel Mountain, *McCalla 2063* (type, in herb. N. Y. Bot. Gard.).

• ***Agoseris obtusifolia* (Suksd.) Rydb. nom. nov.**

Troximon grandiflorum obtusifolium Suksd. Deuts. Bot. Monats.
18: 98. 1900.

This is characterized by the broad oblong obtuse lobes and the obtuse or even rounded apex of the leaves. I think that it deserves specific rank. It has been collected in western Idaho.

***Agoseris tenuifolia* (A. Gray) Rydb. nom. nov.**

Troximon grandiflorum tenuifolium A. Gray, Bot. Calif. 1: 438,
in part. 1876.

Troximon laciniatum A. Gray, Proc. Am. Acad. 19: 72, in part.
1883. Not *Stylopappus laciniatus* Nutt. Trans. Am. Phil.
Soc. II. 7: 432. 1841.

In the Botany of California Gray gives a short description of

Troximon grandiflorum tenuifolium, and points out the characters distinguishing it from *T. grandiflorum*. He gives as a synonym *Stylopappus laciniatus longifolius* Nutt., but a duplicate of the type of the latter collected by Douglas is in the Columbia University herbarium and in this specimen the outer bracts are not dilated as they are in *A. grandiflora* and its relatives.

In the Proceedings of the American Academy, vol. 19, Dr. Gray adopts the name *Troximon laciniatum*, giving as synonyms *Stylopappus laciniatus* Nutt. and its variety *longifolius*; also *Troximon grandiflorum* var. *tenuifolium* and var. *laciniatum* of the Botany of California. A duplicate of Nuttall's type of *Stylopappus laciniatus* is also in the Columbia University herbarium. In later years many specimens matching this specimen have been collected in Wyoming, Colorado, Utah, and Idaho. This is a species with achenes of the type of *Agoseris glauca* and was probably included in Gray's *Troximon glaucum laciniatum*, but it is not *Macrorhynchus glaucus laciniatus* D. C. Eaton. In my Flora of Colorado, I adopted the name *Agoseris laciniata* (Nutt.) Greene for this species. Professor Aven Nelson describes it in the New Manual as *Troximon arachnoideum* (Rydb.) A. Nels. It has nothing to do with *Agoseris arachnoidea* Rydb. See above, p. 18.

TARAXACUM

Professor Nelson's treatment of *Taraxacum* is good. He acknowledges six species, instead of only one as Dr. Gray did. The only criticism I have to offer is that *Taraxacum leiospermum* Rydb. is made a synonym of *T. angustifolium* Greene. It is true that in both the lower part of the achenes is smooth, but otherwise there are several discrepancies between the descriptions of the two. *T. angustifolium* is characterized as having narrow, oblong-linear leaves, and the outer bracts few and small, in a single series, and erect, while in *T. leiospermum* the leaves are broadly oblanceolate and the calyculate bracts are in 2 or 3 series and with spreading tips, as in *T. dumetorum*.

LACTUCA L.

Professor Nelson has given a new specific name to the more common prickly lettuce of the Rocky Mountain region. It has

usually been known as *Lactuca Scariola* L., which name has included all the prickly lettuces found introduced in North America, viz., *L. Scariola* L., *L. virosa* L., *L. saligna* L., etc. The plants with merely toothed leaves were referred to *L. virosa* L. by Dr. N. L. Britton, but Mr. L. F. Dewey of the United States Department of Agriculture contends that it is not *L. virosa* but *L. Scariola integrata* Gren. & Godr. Mr. Dewey is followed by Robinson & Fernald in Gray's New Manual. So also by Professor Nelson, but he regards it as specifically distinct from *L. Scariola* and proposes the name *L. integrata* (Gren. & Godr.) A. Nels. This was altogether unnecessary for *L. Scariola integrata* Gren. & Godr.* was based on *L. augustana* All.† Allion gives a good figure.

Linnaeus in his first edition had only one species, *Lactuca virosa*, with three varieties. In the second edition *L. Scariola* is adopted for *L. virosa* var. δ of the first edition. Both *L. virosa* and *L. Scariola* are based on figures in Morison's Historia, and the figure cited under *L. virosa* resembles indeed very much the more common plant introduced in the Rocky Mountain region, much more so than Allioni's plate of *L. augustana* does. The difference between *L. virosa* and *L. Scariola* given by Linnaeus is that the former has toothed horizontal leaves while in the latter they are pinnatifid and vertical. The plant answering the description of *L. Scariola* has been collected in Utah and Montana but the plant with merely toothed leaves is more common. Mr. Dewey's contention may be correct as far as the plant around Washington and Boston is concerned, but I think the plant of the Rockies and the Pacific Slope is *L. virosa*. So far as I know, the leaves are not turned on edge as they are in *L. Scariola* and Professor Nelson describes the achenes of his *L. integrata* as being dark-colored instead of pale. Dewey described the achenes of *Lactuca virosa* as being darker and broader than in *L. Scariola*, while he could not find any differences between those of the latter and the var. *integrata*. There is another character which helps to distinguish *L. virosa* and *L. Scariola*. In the latter, the branches of the panicle are inclined to be racemiform, while in *L. virosa* they are more branched with more or less diverging branchlets.

*Fl. Tran. 320. 1850.

†Fl. Pedem. 1: 224. 1785.

The Rocky Mountain specimens agree in this respect with *L. virosa*. They have also the obtuse lower leaves of that species as figured by Morison, as illustrated in Sweet's English Botany, in Baxter's British Phaenogamous Botany, and in the Flora von Deutschland. Allioni's illustration of *L. angustana* shows only the upper part of the plant, but all the leaves shown are decidedly acute.

***Lactuca polyphylla* sp. nov.**

Biennial; stem stout, about 1 m. high, glabrous; leaves sessile and slightly auriculate-clasping, very numerous, linear-lanceolate, entire, acuminate, 1-2 dm. long, glabrous, not at all spinulose; panicle conical, much branched, about 3 dm. long, 1.5 dm. broad; involucre about 1 cm. high; outer bracts lanceolate, about half as long as the linear-lanceolate inner ones; achenes nearly black, 3-4 mm. long, oval, indistinctly 3-nerved, transversely rugose; beak about 2 mm. long.

The type was determined as *Lactuca integrifolia* Bigel., but it differs from that purely eastern species in the numerous more willowlike leaves, the stout stem, the numerous heads in a more compact panicle and the short beak of the achenes.

IDAHO: Lake Pend d'Oreille, Aug. 5, 1885, *E. L. Greene* (type in herb. Columbia University).

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